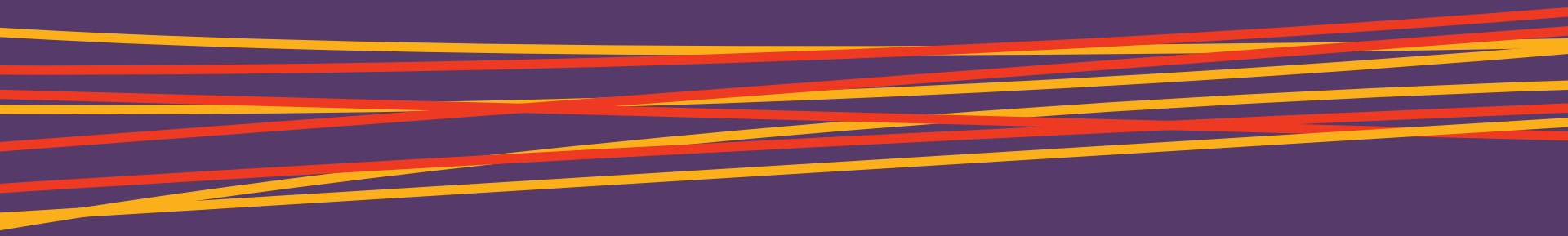
COLOCATION : SERIES 1

SIMPLIFYING THE COLOCATION DECISION JOURNEY

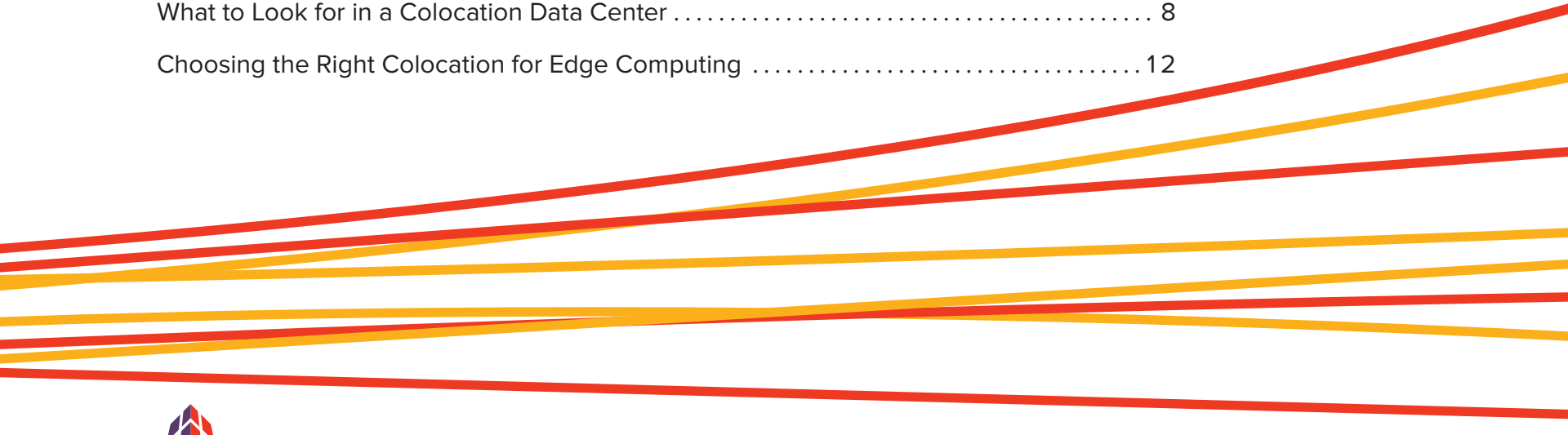
DC BLOX

"The data center industry is changing. The exponential growth of data continues to challenge IT departments to effectively deliver information to their customers, efficiently scale their infrastructure, and protect their business's data. At DC BLOX, that means a lot more than a facility that provides space and power. It means building data centers nearer to consumers in Tier 2 cities, providing cloud services to support hybrid IT options, and connecting everything with high-performance networks to support business continuity. Whether you are currently searching for a colocation provider, or even if you haven't thought about it for a while, we hope this eBook will give you a fresh view of how colocation can play a part in your company's IT strategy."

— Kurt Stoever, Chief Product and Marketing Officer, DC BLOX



Simplifying the Colocation Decision Journey



Should Your IT Stay Or Should You Colo?

Your company has some decisions to make around the future of your data center. Maybe your current data center can't effectively power and cool your workloads, or you're running out of space, or you need a Disaster Recovery site. You're at the point where you have to decide whether or not it makes sense to invest in expanding your own mission-critical data center, or colocating.

What's the best business decision for your company? Here's a high-level list of things to consider:

Data Center Building Costs

It all comes down to capital. Is your IT budget growing along with your needs? What's the best use of capital for your business? Can you justify the Return on Invested Capital (ROIC) in land, shell, generation, switchgear, UPS systems, power distribution, cooling plants, raised floor, conduit, cabling, cabinets, environmental controls, security systems, fencing, etc.? The list goes on.

> *"It all comes down to capital. Is your IT budget growing along with your needs? What's the best use of capital for your business?"*

Once the data center is built, the capital investment isn't over. Maintenance capital is required to ensure that UPS systems, generators, pumps, etc. are all functioning.

Let's assume that the up-front and recurring capital requirements are not an issue. Can you really build it? Completely outsourcing the construction is an option; and it comes with a cost. Do you have the experience, availability and staff to manage the General Contractor? Have you the insight necessary to make key design decisions? Does your Basis of Design allow you to incrementally grow and expand?

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Data Center Operating Costs

Now that it's built, you'll have to keep the data center operating. That means hiring or sourcing support and maintenance staff like facilities engineers, operations technicians, electricians, and network specialists and paying them retainers or extra fees to be on call. You also have to protect your investment and as important, secure your systems and data. That means access control systems, CCTV and 24x7x365 security personnel.

The biggest expense category in data center operations is utility costs. Unless you're building to massive scale, you will probably be paying commercial rates for utilities and will be susceptible to fluctuations in demand rates.

These operating costs are compounded if your business requires storing sensitive data like medical or financial records. For these, you'll need written, auditable process and procedures so that you can prove that you're properly, effectively and securely managing this data. You'll need annual attestation that you're performing to governing compliance standards. This is no small feat.

And don't forget the network! Ensuring you have Internet connectivity with diverse routes, access to IT infrastructure in other locations, and connections with cloud providers hosting your other services, requires high-speed low-latency private connections that add dimensions of complexity and cost.

The Future of Building Your Own Data Center

By many calculations, the cost to lease space in a data center is about 1/3 the cost of building and operating your own depending upon the data center tier, your program and the timeline. For some slim-margin businesses, the decision is fairly easy, but, for other enterprise-level organizations, the analysis may be more complex.

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The data center industry has exploded over the past ten years. Where in the past there may have been few suitable commercial data center options for your workloads, today there are tremendous choices available from colocation providers. The industry has invested and continues to invest billions of dollars annually to deliver secure reliable power and space. There are build-to-suit and sale-leaseback options for custom requirements.

In the end, IT budgets are tight, but your infrastructure needs a place to grow along with demand. You have to decide whether to continue investing or to leverage the resources and investment of data center experts.

What to Look for in a Colocation Data Center.

Your company has decided that internally hosting all your IT infrastructure is no longer a sustainable long-term strategy, so you may be looking for a colocation data center as an alternative. Perhaps your current data center requires expensive capital upgrades or you have limited space or power. Or you need a Disaster Recovery site to backup and restore your data.

No matter what hurdles you have to overcome, data center moves are complex and you need to consider your options carefully.

So, what's the first step in finding a new home for your business-critical infrastructure? Sure, price matters (doesn't it always?), but there's more you need to consider before making your decision.

Why Use a Colocation Data Center?

Colocation is not a new solution, but there are pros and cons. Yes, public clouds are flexible and scalable, but colocation gives you control, security and can extend your hardware and software's useful lives. Not all applications can be refactored for movement to the cloud.

What is The Right Colocation Facility for You?

The LOCATION in Colocation

Yes, the adage: "location, location, location" applies here too. It's a primary reason you choose a colocation data center facility. After all, the closer you are to your data center, the less time your IT staff and support technicians must travel to facilitate the move, deploy your IT and manage your infrastructure.

Now, let's say your environment isn't as hands-on, then location doesn't matter as much. In that case, your colocation data center should provide critical services like smart hands and onsite technical support to make managing your IT remotely easier.

CONTINUED | What to Look for in a Colocation Data Center

Space, Power and Growth

Once you've identified a possible colocation provider, then consider space, power and growth.

When looking at space, make sure you have both enough current space to house your equipment as well as contiguous space to shorten network runs between cabinets. Your provider should also be able to power and cool the density of your infrastructure without making you buy unwanted and unused gray space.

Finally, you'll need enough space to grow within the same building so that you're not incurring the enormous expense to move again in the near future.

It's the Network!

The final major qualifier is the network. Ask these important questions:

- Does your short list of data center providers have the ability to interconnect with the nearest Internet Exchange?
- Do they own and operate their own network or use oversubscribed lit service?
- Do they have a choice of carriers built into the "meet me room" or are you locked into a few providers?
- What capacity and throughput can they offer?
- Do they have multiple locations with high speed and high capacity networks for Disaster Recovery?

Data Center Operating Requirements

Now that you've short-listed your colocation data center providers based on location, power, space and network, it's time to dig deeper. Colocation contracts typically run from three to five years which means you'll have to invest in moving, so make sure it's worth your while long term.

You Need Power

Your data center MUST provide secure, reliable power.

CONTINUED | What to Look for in a Colocation Data Center

It's that simple. Perform your due diligence and see how your candidate providers have designed, implemented and maintained their power/cooling design and physical security.

Use the Uptime Institute's Tier Classification System to evaluate each data center's infrastructure and how design decisions affect availability. Keep in mind that while you may want a Tier IV rating, it will come at a cost.

OPERATIONS Questions to Ask Your Colocation Provider

Here is a list of questions you can ask your data center candidates to gain a deeper understanding of their operations.

- How is change handled? Is there a change process that includes all electrical and mechanical systems? How are changes vetted and approved?
- Ask to see major incident reports; no data center operator is perfect. How are they documented, and do they deliver insight?
- Question the data center's efficiency. Power is a data center's single largest operating expense and you're paying for it.

SECURITY Questions to Ask Your Colocation Provider

You should expect at least a basic physical security level. Here are some things to look for:

- Is there CCTV on the perimeter at access points and in the data center hall? How long are recordings saved? Will there be video surveillance in your space in the data center?
- How are access rosters and badging managed?
- Is the staff courteous, professional and diligent? How does protection present itself in off hours when your staff has to come in to address an emergency?
- Does the provider carry and intend to maintain the level of compliance your company requires?

CONTINUED | What to Look for in a Colocation Data Center

Visit Your Colocation Facility

It may seem obvious but take the data center tour. When you go beyond their sales pitch and learn first-hand, you'll discover what it's like to check in, access the man traps, etc. You'll see how clean the facility is and how the staff presents themselves. They can tell you all day long what you want to hear but seeing is believing.

> *"Data centers are evolving beyond just power, space and connectivity."*

Other Considerations in Choosing a Colocation Data Center Provider

Data centers are evolving beyond just power, space and connectivity. Businesses looking to move infrastructure off their premise need several options so here are a few more questions to consider before making your final decision:

- Does the data center provider offer additional capabilities like multiple data centers within a region for Disaster Recovery or do you have to contract with another provider and handle the networking yourself?
- Does the provider offer cloud and managed services so that you can avoid the capital outlay and management of additional servers and storage?
- Does the data center offer connectivity to carrier exchanges, public cloud providers and SaaS solutions? Even though you may not need these services today, it's good to know you can tap into them in the future.

Conclusion

When the demands on IT services grow, it puts pressure on budgets and resources keeping your business from expanding. Today's modern data centers provide more services and options than ever. But, when you partner with the right local data center provider that takes the time to understand your business and its challenges, you get solutions that help your business grow faster.

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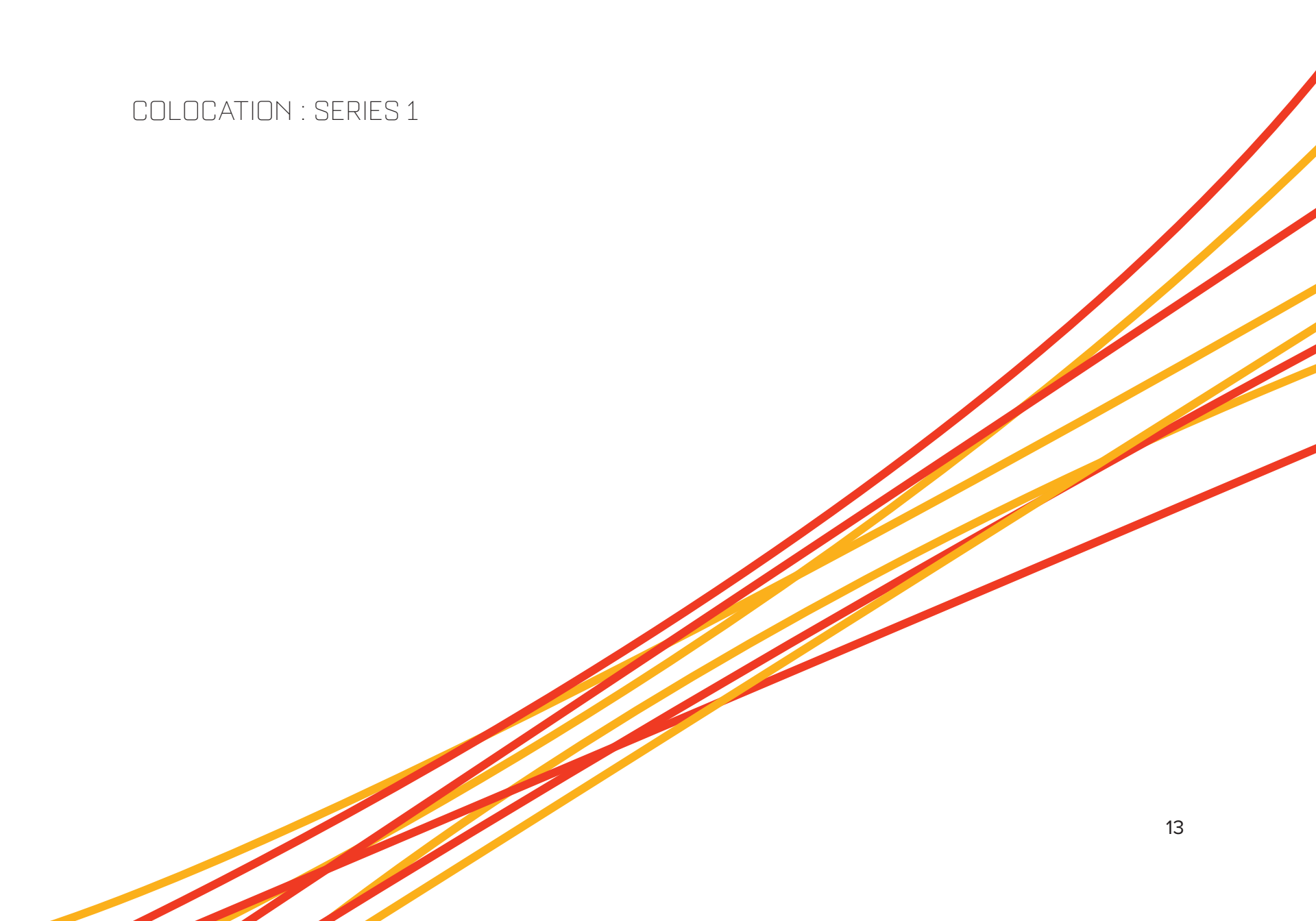

Choosing the Right Colocation for Edge Computing

Now that you've made the decision to switch to colocation, it's time to shop for the best solutions. The options for Edge computing and Edge data centers can vary from purpose-built data centers to converted telco Central Offices and computing rooms to micro deployments at the base of cell towers.

Unless you're in a major metropolitan area like Chicago, Phoenix, Dallas, etc. your choices are limited when it comes to choosing a colocation data center, let alone Edge data center. Many data centers in smaller market areas are almost makeshift in nature. They aren't built to be world class data centers.

These retrofitted facilities may have been created by local VARs or system integrators that simply lease space and create a facility. Or they're a telco that's converted a POP (Point of Presence) to raised floor – and boom, they're a colocation.

At DC BLOX, we've built Edge data centers with a Tier 3 basis of design, placed them in underserved Southeastern markets, and connected all of them together through high speed, high capacity optical networks.

We Bring You Closer to Edge Computing

Our long-term plan positions colocation data centers within 150 miles of major metropolitan areas. This gives businesses in those underserved areas the ability to connect with Internet Exchanges and enables near-site Disaster Recovery.

Our data centers are intentionally built close to the Edge incorporating high-speed networking with an infrastructure designed around security, policies and processes you need to make your business run 24/7.

A Colocation Data Center Built for Growth

Unlike other colocation providers, DC BLOX designed its data centers for higher density workloads, so you buy only what you need now, but you have the ability to scale as you grow. We don't make you buy wasted space to "balance the floor."

CONTINUED | Choosing the Right Colocation for Edge Computing

With us, you can expand space and power as demand exceeds capacity. And, depending on the data center, you can choose from 48U or 50U lockable cabinets.

> *"DC BLOX's Tier 3 data centers are designed for PUE of 1.3 or better."*

It Really is About the Network

As a carrier class network provider, DC BLOX gives you choices. That means access to multiple carriers that build into our colocation data centers or using our wholly owned and operated 8.8Tbps optical network. We deliver low latency connectivity to Internet Exchanges and cloud ramps via our mesh-protected optical network. Select from:

- Direct Internet Access
- Ethernet services
- Transport of 100G and faster

Power and Security to the People

You can rely on DC BLOX's Tier 3 data center for a dependable power system that strives for 1.3 PUE's and employs:

- Diverse utility feeds
- Power generation is N+1 with no less than two (2) fuel suppliers
- N+1 UPS systems protect standard A and B side power to your cabinet (we don't charge extra for B side power)
- 100% power SLA
- N+1 cooling systems
- Superior value for power usage through hot aisle containment on concrete slab

Safety in a Number of Security and Compliance Measures

DC BLOX protects your IT with 24x7x365 manned security with layered physical protection. In fact, we've already achieved our SOC 2 certification since our opening in July 2017. This means that we have the necessary internal controls in place that ensure our clients' data is being

CONTINUED | Choosing the Right Colocation for Edge Computing

handled securely and in accordance with industry standards. Compliance is important to you, your business and us, so you can trust us to protect your IT around the clock.

With DC BLOX, you get:

- Perimeter lighting and fencing combined with monitored CCTV defend against unauthorized campus access.
- Security checks visitors inside the building and allows authorized floor access only after checking customer approved rosters.
- Our data hall access requires two-factor authentication and all cabinets lock.
- CCTV captures all activity to the cabinet row level.

How Does Your Data Center Operations Measure Up?

Being close to the Edge isn't enough if the colocation data center isn't managed properly. At DC BLOX, we take care of our customers, but our data centers are designed for full utility.

Besides our visitor lobby, conference rooms and hoteling features like client cubicles, we've put the vast majority of our investment in what matters most to your business: secure power, networking and maximizing our space to minimize your overhead.

Here's what we do:

- Our electrical and mechanical staff are employed by use and supported by vendor-certified technicians.
- All of our equipment is maintained to specific manufacturer guidelines.
- All of our remote hands staff are employees.
- We apply our change process to all maintenance.

"DC BLOX delivers secure and reliable colocation services. By interconnecting our data centers with high-speed, high-capacity networking you have a disaster recovery solution already built in."

CONTINUED | Choosing the Right Colocation for Edge Computing

Disaster Recovery and Redundancy Advantages

DC BLOX goes beyond delivering efficient colocation and high-speed networking – especially in the event of a disaster. Our data centers perform as one because they're connected through our high capacity network, so you can use one of our other data centers as a Disaster Recovery site, ensuring your business stays continuous.

And, if you're experiencing explosive data storage growth, DC BLOX Cloud Storage enables you to backup and archive your data from within your colocation facility or from your premise-based systems. You can also replicate data from one DC BLOX data center to another for geographic redundancy.

The managed hosting experts at DC BLOX can also help you build and manage your IT infrastructure. We can design and build a private cloud environment that's fully managed in any of our Tier 3 data centers.

Conclusion

At DC BLOX, our carrier class networking services bring cloud ecosystems to your door and let you leverage cloud and managed services as technology changes. We think that Tier 2 markets deserve the same high efficiency, secure colocation services that power the growth of successful businesses in Tier 1 markets like Chicago, Ashburn, Dallas and Atlanta. That's what we're all about.

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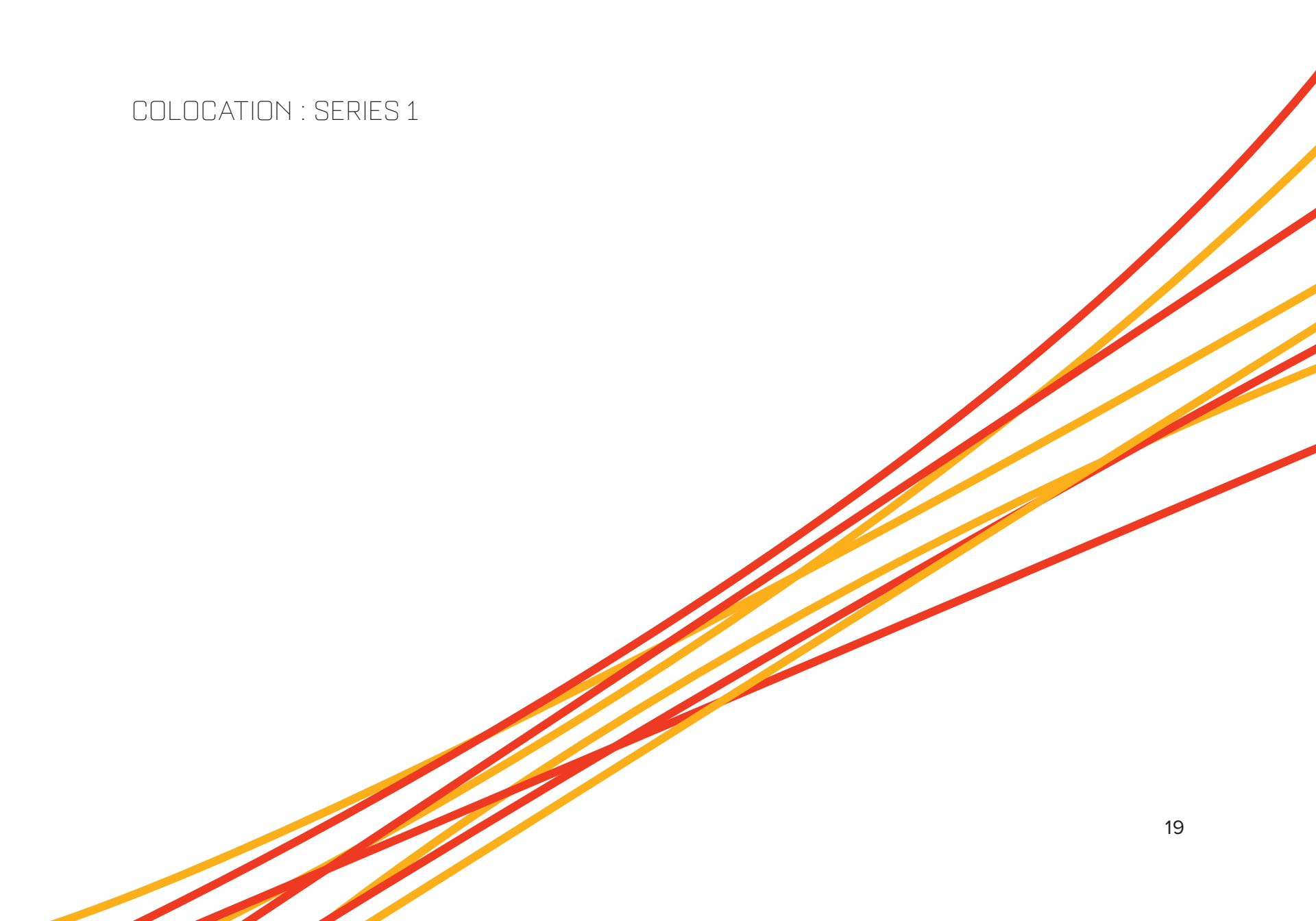

business continuity at the speed of light

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